



BITNER
TOOLING TECHNOLOGIES



*...ready to meet your
most diverse custom
cutting tool requirements.*

Bitner Tooling Technologies product lines represent a broad spectrum of special purpose and application-specific cutting tools, including:

- Special Drills
- Special Reamers
- Subland Tooling
- Circular Form Tools
- Recess Cutters
- Dovetail Form and Shave Tooling
- Special End Mills
- Special Thread Mills
- Milling Cutters
- Precision Hobs
- Multi-Diameter Tooling
- Coolant-Fed Drills
- Cut-Off Tools
- Insert-Style Tooling
- Combination Tooling
- Stepped Boring, Milling and Micro Tools
- Form Tools
- Turning Tools
- Thread Roll Dies
- Combination Milling Cutter Sets
- Circular Saw Sets and Gangs
- Special tools for complex or demanding metal removal operations.

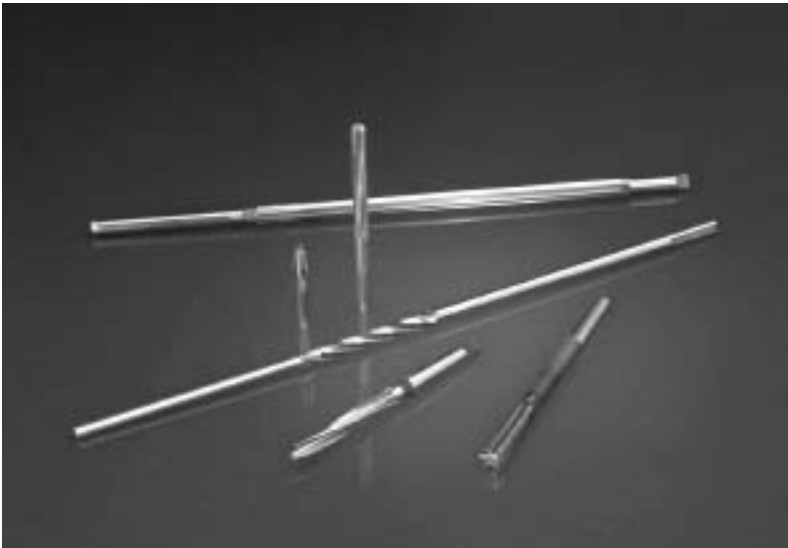
Bitner Tooling Technologies designs and manufactures tools with strict attention to detail and quality. As all of our products are custom manufactured to meet customer-specific cutting tool requirements, there is no price list. Please contact Customer Service for specifications, delivery and pricing.

SPECIAL DRILLS



- Subland Drills
- Subland Core Drills
- Chipbreaker Drills
- Step Drills
- Step Core Drills
- Coolant-Fed Drills
- Deep Hole Drills
- Multiple Flute Drills
- Double and Triple Margin Drills
- Multi-Diameter Drills
- Parabolic Flute Drills
- Drill Reamers
- Special Drill Points and Coatings
- Custom / Blueprint Special Drills

SPECIAL REAMERS



- Step Drill Reamers
- Subland Drill Reamers
- Step Reamers
- Line Reamers
- Jobbers Reamers
- Chucking Reamers
- Piloted Reamers
- Reamers with Lube Grooves
- Multi-Diameter Reamers
- Tapered Reamers
- Straight, Tapered, Squared Shanks
- Customized To Suit the Application
- Custom / Blueprint Special Reamers



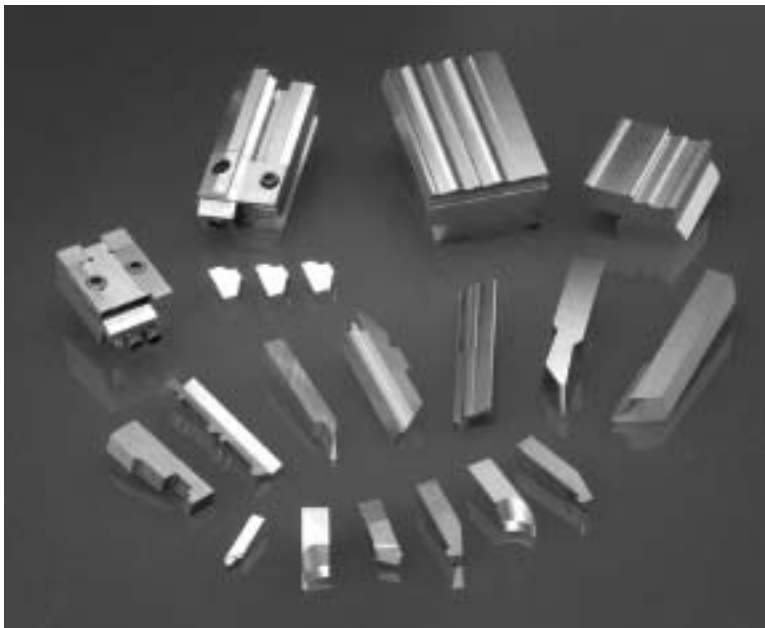
6650 Burroughs Ave. • Sterling Heights, MI 48314 U.S.A.
Phone: 800.435.5800 or 586.803.1100 • Fax: 800.810.7297 or 586.803.1101
E-Mail: sales@bitnertooling.com

CIRCULAR FORM and RECESS TOOLING



- Specialists in circular form and recess tooling.
- Tool concentricity and total indicator run-out (T.I.R.) are insured to required tolerances.
- Blueprint specials designed to your exact specifications.
- Form and recess tools are available in any H.S.S. tool steel or in solid carbide.
- Innovative engineering expertise to design tooling that meets your required manufacturing needs.

DOVETAIL FORM TOOLS and CUSTOM TOOLING



- Bitner Tooling has decades of experience in the precision manufacturing of tool bits, dovetail blanks and dovetail form tools.
- Engineered to exact specifications and cutting requirements.
- High speed steel or carbide.
- Wide array of high quality tool bits for numerous applications.
- Customized tooling can be designed and manufactured from your tool, tool print or part print.



6650 Burroughs Ave. • Sterling Heights, MI 48314 U.S.A.
Phone: 800.435.5800 or 586.803.1100 • Fax: 800.810.7297 or 586.803.1101
E-Mail: sales@bitnertooling.com

SPECIAL END MILLS & THREAD MILLS

Diameter Range: .04" - 1"



Thread Shell
Milling Cutters

A = Constant Clearance Angle
B = Constant Cutting Angle
C = Resharpened Teeth

Manufactured with unique logarithmical relief grinding (constant profile).

- Profile remains 100% constant, even after repeated regrinding at the tooth face.
- The cutting and the clearance angles remain constant and ensure optimum process conditions for the life of the tool.

Mini Internal Whirl
Thread End Mills -
1 Tooth



Thread End Mills

Mini Internal Whirl
Thread End Mills -
4 Teeth



Form End Mills -
Spiral Fluted




Form End Mills

Radius End Mills -
Convex and Concave



MILLING CUTTERS

Diameter Range: .16" - 7.9"



A = Constant Clearance Angle
B = Constant Cutting Angle
C = Resharpened Teeth

Manufactured with unique logarithmical relief grinding (constant profile).

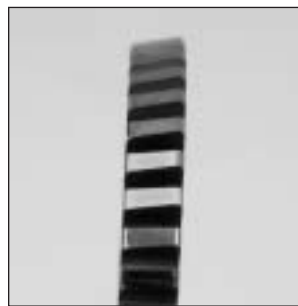
- Profile remains 100% constant, even after repeated regrinding at the tooth face.
- The cutting and the clearance angles remain constant and ensure optimum process conditions for the life of the tool.



Worm and Thread Milling Cutters



Prism Milling Cutters



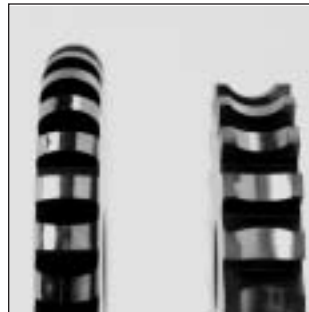
Angle Milling Cutters



Gear Milling Cutters



Form Milling Cutters for Keys



Radius Milling Cutters - Concave and Convex



Form Milling Cutters - Spiral Fluted



Staggered Tooth Milling Cutters



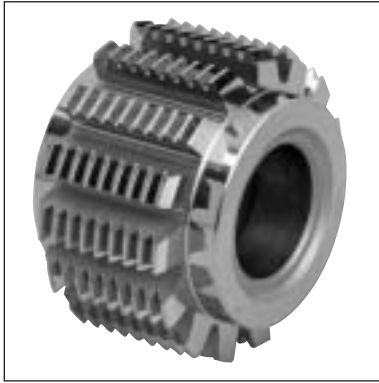
Form Milling Cutters



6650 Burroughs Ave. • Sterling Heights, MI 48314 U.S.A.
Phone: 800.435.5800 or 586.803.1100 • Fax: 800.810.7297 or 586.803.1101
E-Mail: sales@bitnertooling.com


PRECISION HOBS

Diameter Range: .23" - 4.7"



Involute Precision Hobs

Class AA DIN 3968 or 7 DIN 58413



A = Constant Clearance Angle
B = Constant Cutting Angle
C = Resharpended Teeth

Manufactured with unique logarithmical relief grinding (constant profile).

- Profile remains 100% constant, even after repeated regrinding at the tooth face.
- The cutting and the clearance angles remain constant and ensure optimum process conditions for the life of the tool.



Special Form Precision Hobs



Cycloidal Precision Hobs

STEPPED BORING, MILLING & MICRO TOOLS

Diameter Range: .012" - .78"



Stepped Boring Tools

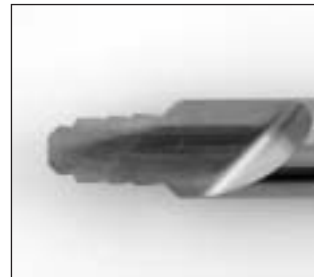


Stepped Flat Boring Tools

Micro End Mills



Stepped Milling Tools



Form Boring Tools




6650 Burroughs Ave. • Sterling Heights, MI 48314 U.S.A.
Phone: 800.435.5800 or 586.803.1100 • Fax: 800.810.7297 or 586.803.1101
E-Mail: sales@bitnertooling.com

FORM TOOLS & TURNING TOOLS



Form Steel Tools
Sq. Sizes: .2 - 1"



Manufactured with unique logarithmical relief grinding (constant profile).

- Profile remains 100% constant, even after repeated regrinding at the tooth face.
- The cutting and the clearance angles remain constant and ensure optimum process conditions for the life of the tool.

A = Constant Clearance Angle
B = Constant Cutting Angle
C = Resharpened Teeth



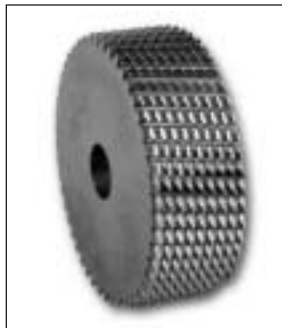
Circular Form Tools
Dia.: .2 - 5.9"



Special Front
Turning Tools
Dia.: .04 - 1"

SPECIAL CUTTERS & THREAD ROLL DIES

Diameter Range: .23" - 4.7"



Thread Milling Cutters
for Spindle Automatics



Thread Roll
Dies



Special Polygon
Milling Cutters



Polygon Milling Cutters

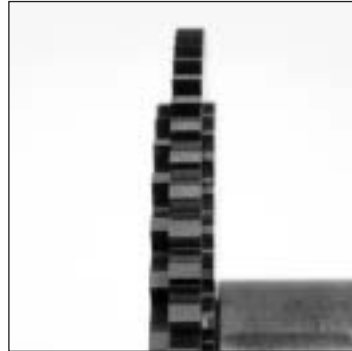


6650 Burroughs Ave. • Sterling Heights, MI 48314 U.S.A.
Phone: 800.435.5800 or 586.803.1100 • Fax: 800.810.7297 or 586.803.1101
E-Mail: sales@bitnertooling.com

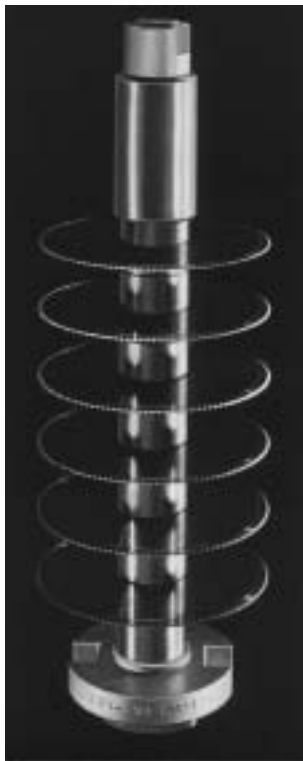
COMBINATION MILLING and SAW SETS



Milling Cutter Sets
(log. R. ground)
Dia.: .2 - 7.9"



Slitting Saw Sets
(log. R. ground)
Dia.: .2 - 7.9"



Circular Saw Gangs for
high precision, tight tolerance
multiple cutting, slitting or
slotting operations...in a
single pass!



6650 Burroughs Ave. • Sterling Heights, MI 48314 U.S.A.
Phone: 800.435.5800 or 586.803.1100 • Fax: 800.810.7297 or 586.803.1101
E-Mail: sales@bitnertooling.com

24-Hour Service!
...made to specifications shown.



www.gayleesaws.com

SOLID CARBIDE & CARBIDE-TIPPED THIN SAWS

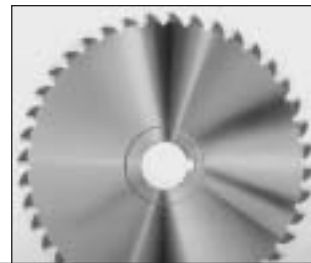
24-Hour Shipment of premium quality
SOLID CARBIDE "Thin Saws"



- Diameter Range:
Inch - 3/4" thru 4"
Metric - 20mm thru 100mm
- Thickness Range:
Inch - .008" thru .250"
Metric - .20mm thru 6.35mm
- Arbor Hole Sizes:
Inch - Standard Sizes
Metric - 5mm, 8mm, 10mm, 13mm, 16mm, 22mm
- Tolerances:
Inch - +.0005" / -.0000 on ID and thickness; O.D. tolerance = +.005" / -.000"
Metric - +.013mm / -.0000mm on ID and thickness; O.D. tolerance = +.13mm / -.000mm

Gaylee also offers a wide selection of Carbide-Tipped Thin Saws.

- Carbide-tipped saws as thin as .030"
- As thick as 1.00"
- O.D.'s to 10"
- Tolerances to: +.0010" / -.0000"
- Modified and special saws available, with tighter tolerances when required.



6650 Burroughs Ave. • Sterling Heights, MI 48314 U.S.A.
Phone: 800.435.5800 or 586.803.1100 • Fax: 800.810.7297 or 586.803.1101
E-Mail: sales@bitnertooling.com

SMART CUT™

TAPPING, DRILLING and MACHINING FLUID



“Smart Cut”™ is a state-of-the-art machining fluid which is environmentally smart because it’s ozone friendly. This metalworking fluid is designed for machining operations in all metals.

Smart Cut:

- Extends tool life;
- Reduces friction between cutting tool and workpiece;
- Dissipates heat;
- Penetrates to the tools cutting edge and stays on the tool;
- Allows lower machining torque;
- Is environmentally smart, and ozone-friendly...eliminates hassles of costly hazardous waste disposal.



“Smart Cut”™ is available in 16 oz., 1 gallon, 5 gallon and 55 gallon drum containers.

SIZE	ORDER NUMBER
16 oz.	FL 110
Case	FL 115 (12 per case)
1 gallon	FL 120
Case	FL 125 (4 per case)
5 gallon	FL 130
55 gallon drum	FL 135



6650 Burroughs Ave. • Sterling Heights, MI 48314 U.S.A.
Phone: 800.435.5800 or 586.803.1100 • Fax: 800.810.7297 or 586.803.1101
E-Mail: sales@bitnertooling.com

DISTRIBUTED BY:



6650 Burroughs Ave. • Sterling Heights, MI 48314
Phone: 800.435.5800 • 586.803.1100
Fax: 800.810.7297 • 586.803.1101
E-Mail: sales@bitnertooling.com • Web: www.bitnertooling.com

Catalog No. 8-08
Printed in U.S.A.
© 2008 Bitner Tooling Technologies
A Global Specialty Solutions Inc. company

